Technical Guidelines for Metadata Preparation

CoRIS Metadata Committee

Version 4.0

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1 Introduction

1.1 Executive Summary

NOAA's Coral Reef Information System (CoRIS) is the official NOAA system for managing access to its coral reef data and information. CoRIS is a web-enabled, GIS-enhanced, state-of-the-art information system utilizing a single web portal to gain access to NOAA's coral reef data and information holdings, activities, and library services. CoRIS supports NOAA's contribution to the U.S. Coral Reef Task Force National Action Plan and provides a rich offering of search tools to aid in the discovery and interpretation of NOAA data and information on coral reef ecosystems and adjacent interrelated habitats and communities.

The development of CoRIS was based on several underlying principles. CoRIS is to provide a rich and varied content of data and information; demonstrate rigorous scientific integrity; be factual; provide direct access to well-documented data through a united interface; make use of existing operational coral reef information systems; and provide metadata-enabled access to data and information. Therefore, quality metadata are a crucial supporting component that significantly affects the success CoRIS. The CoRIS web site is http://www.coris.noaa.gov .

CoRIS metadata will assist evaluation of, and access to, online coral reef data products. To this end, metadata are briefly defined, references to metadata resources and the Federal Geographic Data Committee (FGDC) standards are presented, and a general methodology for preparing metadata is outlined. It is assumed that this person has sufficient knowledge of the data to be documented. While specific to coral reef data, these guidelines are relevant and useful to many NOAA data disciplines because of the diverse coral reef data types and collection methods.

1.2 Document Purpose

The purpose of this to document is to provide the technical details needed to understand and create metadata that will be contributed to CoRIS. These metadata will assist evaluation of, and access to, online coral reef data products. To this end, metadata are briefly defined, references to metadata resources and the Federal Geographic Data Committee (FGDC) standards are presented, and a general methodology for preparing metadata is outlined. It is assumed that this person has sufficient knowledge of the data to be documented. While specific to coral reef data, these guidelines are relevant and useful to many NOAA data disciplines because of the diverse coral reef data types and collection methods.

An accompanying document, A Guide to Metadata Preparation, is being prepared. As many contributors are not familiar with metadata, that document, written in plain language, will assist them in creating the documentation needed to properly describe their datasets. This document serves as the technical appendix to the Guide to Metadata Preparation.

If you have questions about creating CoRIS metadata, or submitting metadata to CoRIS, contact the CoRIS metadata staff at *CoRIS.metadata@noaa.gov*

2 Metadata

2.1 Definition

Metadata consist of information that characterize data sets and provide documentation for data products. Metadata document data and thereby impart knowledge about the data to potential users. Geospatial metadata include the format of the data, the positional references and conventions applied to the data, and the attributes and characteristics of objects identified in the data. Metadata define what was observed, or measured and when, where, how, why and by whom the observations or measurements were made, and what standards, reference materials and calibration procedures where applied. Metadata define the accuracy, quality, and resolution of the data. And, metadata provide a means to access the data. A series of URLs to metadata information resources are found in Appendix A., Metadata Information Resources.

3 CoRIS Metadata

The pathway to the broad array of diverse coral reef data and information is through metadata, which are critical for the CoRIS web site Data Discovery process. The efficiency and success of the search strategy is only as good as the completeness and correctness of the metadata. Especially crucial are the metadata title, abstract, temporal and spatial bounds, place, theme and discovery keywords, and distribution URLs. The entire text metadata record is provided as part of the search results.

The CoRIS web site Data Discovery uses Text Search and Map Search methods.
Actual keywords from metadata records are provided as search parameters for the Text Search to better improve the chance of success by users looking for coral data. Shape files based upon spatial bounds are created for each data set as layers in the Map Search. Use of metadata content in the web search has proven to be a powerful quality control tool.

The CoRIS Text Search retrieves two types of metadata records, one, based upon FGDC standards and the other, based upon MARC21 standards, which meet the user's search criteria. This method provides access to traditional coral reef data sets described by FGDC metadata and access to publications, videos, etc., through NOAALINC, the NOAA Central Library online catalog, and its coral reef MARC21 metadata via the Z39.50 search protocol. The relationship between MARC21 and FGDC standards are displayed in the crosswalk document, http://coris.noaa.gov/backmatter/examples/MetadataCrosswalk.pdf, where the core elements of the both standards are mapped. The library metadata available in CoRIS is created and maintained in the NOAA Central Library according to the library guidelines incorporated in its Cataloging Manual document (http://www.lib.noaa.gov/cataloging/Cataloging_Manual/TOC.html).

Several sample FGDC metadata records are provided on the CoRIS web site http://coris.noaa.gov/backmatter/supportingdocs.html#metadataexamples.

3.1 CoRIS Metadata Principles

Development and management of CoRIS metadata are based on the following principles:

1. Metadata are central to CoRIS data and information search and discovery.
2. CoRIS metadata structure is based on existing standards – FGDC CSDGM, FGDC Profiles (including the Biological Profile and Shoreline Profile), and FGDC extensions.

3. Metadata are reviewed for completeness and compliance with CoRIS standards to ensure proper functioning of CoRIS data discovery operations.
4. Data linkages from metadata should provide direct access to data product if possible.
5. Metadata are preserved in a secure environment to guard against loss and ensure continuing availability.
6. Metadata are periodically updated to reflect changes in the data set(s), data access and/or other information contained in metadata files.

3.2 CoRIS Metadata Standards

To ensure uniformity in metadata, and to meet Federal requirements, CoRIS metadata adhere to the Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata (CSDGM) and endorsed profiles that pertain to coral reef data sets. The federally mandated use of the CSDGM enforces consistency by providing a common set of terminology and definitions for the documentation of geospatial data.

Approved variations to CSDGM are called profiles, or extensions. An organization may have its own local extensions. Profiles use the base CSDGM and include specific metadata elements for the data type. If the data include biological taxonomy, the Biological Data Profile of the Content Standard for Digital Geospatial Metadata is to be used.

The FGDC Metadata Profile for Shoreline Data is oriented towards providing the elements necessary for documenting shoreline data and reaching a common understanding of the shoreline for national mapping purposes and other geospatial and Geographic Information Systems (GIS) applications and may be used for CoRIS metadata.

The Content Standard for Digital Geospatial Metadata: Extensions for Remote Sensing Metadata is now available to document data collected from satellites. This extension describes the sensor, platform, method and process of deriving geospatial information from the raw telemetry, and the information needed to determine the geographical location of the remotely sensed data.

The present capability of the CoRIS metadata system to currently handle other FGDC profiles and extensions other than the biological and remote sensing is limited. Therefore, CoRIS does not require the use of the Metadata Profile for Shoreline Data, for example, but will accept metadata using them and will implement enhancements to manage them if it becomes necessary. CoRIS will save the original metadata records and modify any metadata records using these variations of the standards for inclusion in CoRIS and replace them with the original records when possible.

See Appendix B., Federal Geographic Data Committees Metadata Standards, for links to the various FGDC metadata standards.

3.2.1 Minimum Required Metadata Elements

The elements identified below are required for the CoRIS search and discovery mechanisms and to conform to minimum FGDC standards:

Section 1: Identification
- 1.1 Citation - Use of Online Linkage (Standard Section 8.10) information is mandatory if the originator of the data maintains the data at an online location.
- 1.2 Description
- 1.3 Time Period of Content
- 1.4 Status
- 1.5 Spatial Domain
- 1.6 Keywords

1.6 ½ Taxonomy (mandatory for biological data)
1.7 Access Constraints
1.8 Use Constraints

Section 6: Distribution
6.1 Distributor
6.3 Distribution Liability
6.4 Standard Order Process - Use of Network Resource Name (6.4.2.2.1.1.1.1) is required for data served by a distribution center, such as an archive or data center. Other Portions of Section 6 are mandatory if they are applicable.

Section 7: Metadata Reference Information
7.1 Metadata Date
7.2 Metadata Review Date
7.3 Metadata Contact (Contact Information)
7.4 Metadata Standard Name
7.5 Metadata Standard Version

Other sections are mandatory if applicable. In particular, Section 2, Data Quality Information and Section 4, Spatial Reference Information, should be included for quantitative data (e.g. numeric data files, video transects, etc.). Section 3 Spatial Data Organization, Section 5 Entity and Attribute Information, if applicable, should be used for spatial data (e.g. maps, georeferenced images, GIS files). When at all possible, fill in as many sections as you can. The more complete a metadata record, the greater is its value to future users.

Appendix C., ASCII Template for CoRIS Metadata, contains a template of recommended the CoRIS metadata elements for the most common types of data documented in CoRIS at this time.

4 CoRIS Metadata Preparation

CoRIS recognizes that those who collect the data, understand the data, and are in the best persons to provide accurate descriptions of data in the metadata. But, creation of quality, compliant metadata is not a simple task, especially for those unfamiliar with the protocol. Realizing this, CoRIS provides these metadata guidelines and thesauri to assist metadata creators. And CoRIS staff are available to help with metadata preparation, and to answer questions about format, content, or how to transfer files. CoRIS plans to offer a web based interface to CoRIS contributors for metadata creation and maintenance in the near future.

The creator of the metadata, who can be the principal investigator or another individual, uses expertise of the data to create metadata. The metadata creator should include CoRIS keywords as described in Section 4.3.1. The metadata creator may use any tool to create well-structured, compliant metadata records in ASCII text, XML, or SGML. Some tools for metadata creation are described at these URLS: http://www.ncddc.noaa.gov/Metadata/Tools and http://badger.state.wi.us/agencies/wlib/sco/metatool/

Programs CNS and MP are commonly used for checking the format and completeness of metadata (http://geology.usgs.gov/tools/metadata). Note use considerations in Section 4.3.4.

After the metadata record has been created, the responsible principal investigator reviews the record. The purpose of this review is to ensure that the scientific content, such as the data set description, methodology, etc., are correct. The metadata record is then given to CoRIS.

When a metadata file is received, CoRIS personnel will review the metadata file and work with contributors to develop conforming data set descriptions. The remainder of Section 4 presents a framework for preparing CoRIS metadata records. When added to CoRIS, these metadata records will be used to support CoRIS web site text and map searches by potential users interested in coral reef project data products.

Several sample FGDC metadata records are provided on the CoRIS web site http://coris.noaa.gov/backmatter/supportingdocs.html.

4.1 Analyze the Data Set

Coral reef data sets and products are diverse, consisting of coastal observations such as aerial photography, bathymetry, meteorological, physical oceanography, benthic, geographic, biologic, fish censuses, chemistry, geology, paleoclimatology, acoustics, and monitoring and assessments.

The characteristics and anticipated uses of a data product need to be considered in order to determine the number and type of metadata records; whether parent and child records are needed, and how to create parent and child records (see section 4.3); and which CSDGM standard profile, or extension applies (Section 3.2). In most instances, one metadata record, or child record, will be created for each data type, location and time period. But, one metadata record may be prepared for one data type, one area and multiple times.

4.2 Select a Method

Metadata can be created by using a text editor, or software designed for that purpose; a metadata tool. A text editor can be used to enter information into a metadata template that contains whatever metadata elements may be necessary. Needed metadata elements can be added, and unnecessary or empty elements deleted. ASCII templates are simple to use, require no specialized software, and can be made for parts of the metadata standard that are common to multiple data sets. A major drawback to using templates is that there is no built in control of the metadata structure; during the process of cutting and pasting it is easy to corrupt the record so it is no longer FGDC compliant.

For CoRIS metadata contributors, an ASCII template of required and mandatory-if-applicable fields for CoRIS is available in Appendix C. Use this template if it is appropriate for describing your data. If not, an ASCII template of the full, basic FGDC metadata is available here: http://coris.noaa.gov/backmatter/examples/FGDCBasicASCII.pdf.

ASCII Templates were not available for other FGDC profiles, or extensions, at the time of publication of this document.

There are many software tools with various capabilities and system requirements available for preparing metadata. Information about the majority of these tools is presented on these two web sites: http://www.ncddc.noaa.gov/Metadata/Tools and

http://badger.state.wi.us/agencies/wlib/sco/metatool/

Authors using text editors are encouraged to use the CNS (Chew aNd Spit) to properly format metadata records and MP (Metadata Parser) tool for error checking. MP checks for consistency with the FGDC standards and provides for export of metadata in XML, SGML, and HTML (HyperText Markup Language), if desired. Configuration files are available for using MP with the Biological and Shoreline Profiles to the CSDGM. Avoid using CNS when taxonomy section is used in a metadata record because it destroys the hierarchy. For additional information, see http://geology.usgs.gov/tools/metadata.

For more useful information about the FGDC standard and creating metadata see http://geology.usgs.gov/tools/metadata/tools/doc/faq.html#1.1

These tools are provided for information purposes only. CoRIS, NOAA and the federal government do not recommend any particular software tool, and are not liable for any malfunctions, errors, deletions, or omissions.

4.3 Content and Format Considerations

Review the CSDGM and applicable profile metadata or extension metadata elements to note the information required such as, title, abstract, spatial and temporal extents, etc. Review the CoRIS specific metadata content requirements. For example, keywords for location, theme and data type format (Discovery Keyword) that are used in web searches to find data and information that must be included in the metadata records. Also, consider the CoRIS requirement for a public URL for direct access to the data set, or product. These and other metadata element contents of importance to CoRIS are in Section 4.6. Appendix D., Metadata Element Level Guidance, explains individual metadata element content.

The following sections describe specific data elements, and their format and content, that CoRIS requires from the basic FGDC standard and the biological profile.

4.3.1 CoRIS Metadata Keywords

To facilitate the CoRIS web site data and information discovery process, CoRIS developed hierarchically arranged suites of standardized keywords for inclusion in the metadata to help characterize the data set described. Keywords designate categories that define search criteria for location, product formats. Actual keywords words in the metadata records are provided on the CoRIS web site to insure positive results when used as the sole search criteria.

Metadata should include keywords from the CoRIS Thesauri, which include 'Theme', 'Place' and 'Discovery' keywords; the latter identifies data according to type. Each metadata record should have only one Discovery keyword, at least one Place and one, or many Theme keywords The CoRIS Thesauri are available at

http://www.coris.noaa.gov/backmatter/supportingdocs.html. If a needed keyword is not available in the CoRIS thesauri, include it under a thesaurus of "None" in the metadata record.

Keywords and thesauri not of CoRIS origin may also be used in metadata records.

4.3.2 Specifying Dates and Positions

Date and geographic position information are required to properly locate the data temporally and spatially. This section provides guidance and some samples for completing date and bounding coordinate fields.

The date for the standard is represented as follows:

A.D. Era to December 31, 9999 A.D.:
YYYY for year,
YYYYMM for month of a year, and
YYYYMMDD for a day of the year

A.D. Era after 9999 A.D.: cdYYYYYYY

B.C. Era to 9999 B.C.:
bcYYYY for year,
bcYYYYMM for month of a year, and
bcYYYYMMDD for a day of the year

B.C. Era before 9999 B.C.: ccYYYYYYY

Element 1.3, Time Period of Content, includes Beginning_Date and Ending_Date fields, under Range_of_Dates/Times. Dates of the data set being described by the originator should be the actual dates of the conditions that are represented by the data, when the conditions occurred, not necessarily the data collection or publication dates. For example, for paleoclimate data, the dates are those when the environmental conditions occurred, and the data collection dates of aerial photography are the (same as) dates of the data. For near real-time data, *still being collected*, enter the earliest date of the data or product in Beginning_Date. Enter the word "Present" in the field Ending_Date.

Bounding dates must be for continuous time period, or more than one time continuous period for data of the same type, preferably a data set.

The geographic position for the standard is represented as follows:

Latitude is represented as DD.DDD in decimal degrees.
Northern hemisphere is positive and southern hemisphere is negative (-).

Longitude is represented as DDD.DDD in decimal degrees.
Eastern hemisphere is positive and western hemisphere is negative (-).

A sample of bounding coordinates for a single position in the northwest quadrant is:

West_Bounding_Coordinate: -120.00 (no space between number a negative sign)
East_Bounding_Coordinate: -120.00
North_Bounding_Coordinate: 38.236
South_Bounding_Coordinate: 38.236

Bounding coordinates of a rectangle in the southeastern hemisphere might be:

West_Bounding_Coordinate: 115.345
East_Bounding_Coordinate: 122.500
North_Bounding_Coordinate: -35.122
South_Bounding_Coordinate: -38.236

Sample bounding coordinates for a rectangle straddling the equator and 180 degree meridian:

West_Bounding_Coordinate: 175.345
East_Bounding_Coordinate: -178.500
North_Bounding_Coordinate: 8.236
South_Bounding_Coordinate: -5.122

Bounding coordinates must be for spatially contiguous data of the same type.

4.3.3 Taxonomy

Users of CoRIS will be able to find data with a specific taxon only if that information is included in the metadata. Taxonomy is to be included from the highest to the lowest classification level possible to provide valuable biological information and make the metadata more useful. The Biological Data Profile of the Content Standard for Digital Geospatial Metadata is used to

document taxonomic keywords, classification system(s) used, methodology, analytical tools, taxa, etc.

Data originators are encouraged to compare all species names with the Integrated Taxonomic Information System (ITIS) and to document the classification system used for their taxonomy**.** ITIS is available at http://www.itis.usda.gov/ . The original ITIS partners include: National Oceanic and Atmospheric Administration (NOAA), Geological Survey (USGS), Environmental Protection Agency (EPA), Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) and Smithsonian National Museum of Natural History (NMNH).

All the taxa and hierarchical classifications for existing CoRIS metadata are available to possibly assist adding taxonomy to a metadata record at the web site:

ftp://ftp.nodc.noaa.gov/pub/outgoing/CoRIS/Metadata/Coris.taxonomy.xls

CoRIS requests the following metadata elements for taxonomy:

Taxonomy:
Keywords/Taxon:
Taxonomic_Keyword_Thesaurus:
Taxonomic_Keywords:
Taxonomic_System:
Classification_System/Authority:
Classification_System_Citation:
General_Taxonomic_Coverage:
Taxonomic_Classification:
Taxon_Rank_Name:
Taxon_Rank_Value:
Applicable_Common_Name:

The compound element Taxonomic_Classification is repeated for each level of taxonomic rank.

CoRIS requests the use of Kingdom, Phylum, Division (Plantae only), Class, Order, Family, Genus and Species. If more than one Kingdom is represented, begin the hierarchy with Kingdoms, and the list. The web document, http://coris.noaa.gov/backmatter/examples/BiologicalProfileElements.pdf, contains a sample metadata record with these taxonomy elements.

For complete taxonomy metadata elements and definitions see

http://www.fgdc.gov/standards/status/sub5_2.html and

http://www.nbii.gov/datainfo/metadata/standards/index.html.

To properly represent taxonomic classification of more than one taxon, indentation and nesting of the lines of the file is used to define the taxonomic hierarchy. In XML, the hierarchy is maintained with nesting using the opening and closing XML tags; <taxoncl>, <taxonrn>, </taxonrn>, <taxonrv>, </taxonrv> and </taxoncl>.

4.3.4 Miscellaneous Considerations

CoRIS metadata management system maintains metadata records as XML files. Therefore, the use of “<” in the metadata elements must be avoided because “<” is the opening designator for an XML tag. Use “less than” in the metadata record.

Other special characters not commonly used in business, such as, "º" for degrees, "±" and measurement units, etc., can cause garbage to appear in the metadata, when viewed with editors, or browsers. This is apparently due to ASCII encoding differences in the software. Please write the items in full text, "degrees", or "plus, or minus", for example.

The Metadata Parser (MP) tends to flag the use of metadata standard element names in the text Do not begin lines with metadata standard element names as these will be errors. Best to avoid using them altogether when possible. Also, avoid using tabs which are diagnosed as indentation problems.

4.4 Parent/Child Metadata

Child metadata records give users the ability to find only those products that meet their needs for specific dates and/or geographic regions. For example, someone searching for data within a narrow date range of one month will be given only those products that fall within that month instead of having to retrieve and read through many data sets. Specifically, a suite of daily AVHRR SST images of a single area might have one parent record for a month, or a year and 30, or 365 temporal child records, respectively. Or, data from a drifting buoy might have a parent record every month and 30 daily spatial-temporal child records.

The use of parent and child metadata records should be considered when the majority of respective metadata elements for a suite of data sets will consist of redundant content.

A parent, a complete metadata record, is created that describes the data set collection, its content, geographic extent and overall dates of coverage, as well as other source and distribution information. Each child record contains the variable metadata elements content, the applicable spatial and/or temporal value(s), a link to its data set and a tag to its parent. Child records decrease the number of multiple, nearly identical metadata records, which results in less work for metadata preparers and data searchers.

Several child records that accompany the parent metadata record for Degree Heating Week Charts in the Eastern Hemisphere for the year 2003 are included here for illustration.

20030103, http://www.osdpd.noaa.gov/PSB/EPS/SST/data2/dhwe.1.3.2003.gif
20030106, http://www.osdpd.noaa.gov/PSB/EPS/SST/data2/dhwe.1.6.2003.gif
20030111, http://www.osdpd.noaa.gov/PSB/EPS/SST/data2/dhwe.1.11.2003.gif
20030113, http://www.osdpd.noaa.gov/PSB/EPS/SST/data2/dhwe.1.13.2003.gif
20030118, http://www.osdpd.noaa.gov/PSB/EPS/SST/data2/dhwe.1.18.2003.gif

Fields of these child records are separated by commas. In this example, the fields are:

Date of product and URL for the product

To indicate the parent and child metadata file relationship, prefix "child_" to the parent metadata filename of the file containing the respective child records.

The fields above are appropriate for this particular dataset, but other fields may be needed for a different datasets. For example, a data set whose child products vary by geography rather than by date should include the bounding coordinates of each child.

When parent/child metadata records are used, be sure to include the following:

(1) a complete metadata description of the data collection – the parent metadata,
(2) a file of comma-separated values that make up the child metadata for each product (parent), and
(3) a description of the child fields and any other information you think may be needed to interpret the metadata.

4.5 Contributing Metadata to CoRIS

When the principal investigator is satisfied with the metadata, final ASCII text and/or XML/ SGML versions of the metadata record are created for transfer to CoRIS.

The most common method of transfer is to attach the files to an email message, as a zip file if there are many records. Other methods are via digital media, such as, CDrom, or FTP.

Using FTP, the completed metadata records are transmitted to the CoRIS data receipt site:

ftp://ftp.nodc.noaa.gov/pub/incoming/CoRIS

To use FTP directly

ftp.nodc.noaa.gov
user: anonymous
password: guest, or email address
cd pub, cd incoming, cd CoRIS
put "filename.ext"

Regardless of the method used to provide metadata to CoRIS, please send an email message to CoRIS.metadata@noaa.gov and identify the metadata source, the coral reef project, the filenames, and child records (if applicable). If any unusual characteristics pertain to the data, or metadata, please make note of them.

4.6 Metadata Review

When a metadata file is received, CoRIS personnel will review the metadata file and work with contributors to make complete, conforming data set descriptions for CoRIS. The primary items addressed in the metadata review are presented below. When the contributor and CoRIS approve the metadata record, the metadata record will be made available to the CoRIS web server.

4.6.1 Content Review

Metadata files are the means by which coral reef data sets can be discovered on the CoRIS web site by potential users. Metadata contain the information a user will search to decide whether or not the described data set is of interest.

The following are the primary items reviewed by CoRIS:

1. Do all required metadata elements exist with applicable content? The set of required fields for CoRIS are listed in the template (Appendix C). If required fields are missing, or empty CoRIS will work with the metadata originator to complete the metadata file.

2. Does the title describe the data adequately; usually the title should answer the 'what', 'where' and possibly 'when' of the data. The discriminating facts should be first in the title.

3. Is the abstract a good summary?

4. Are the dates specified by originators in Time_Period_of_Content the actual dates during which environmental conditions that are represented by the data occurred?

5. Are CoRIS Discovery, Place and Theme keywords included?

6. Are data available online or, if not, are offline instructions provided, or does CoRIS have the data? Are the data restricted? If so are instructions for handling provided?

7. Are data URLs completed?

    a. If data are served from the data originator's site, the URL that leads to data would be included in Online_Linkage.
    b. If data are being made available online from a distribution center, the URL that leads to data would be in Network_Resource_Name. If not, the originator URL may be here too. (If CoRIS serves the data set the CoRIS URL will appear here too). (Multiple URLs are permitted).
    c. If a preview or browse graphic is available, the URL that leads to the graphic will be included in Browse_Graphic.
    d. If data are being made available offline, instructions for data access will be found in Ordering_Instructions.

8. Are child metadata included? If so, the fields in child records will also be reviewed. The temporal and spatial extents of the parent metadata must encompass the collection of respective child records minimum and maximum temporal and spatial values.

9. If taxonomy hierarchy is present are the species names are found in ITIS? Also, is the taxonomic classification system used documented?

10. Are the structure and content of metadata fields valid? The software MP (Metadata Parser) is used to check the content .

CoRIS will work with the metadata contributor to enhance the metadata file, if necessary.

4.6.2 Completion of a Metadata Record

To assist the identification and tracking of a contributor's metadata within CoRIS and for applying future updates, a unique metadata tracking identifier will be used to identify a metadata record in CoRIS. This is simply a sequence number assigned by CoRIS and is referred to as the Tracking ID.

After new metadata files are added to the CoRIS metadata repository, a web search will be performed to retrieve and verify the metadata and data access. The contributor should do the same to ensure correctness of the metadata.

For each metadata record, CoRIS will provide to the contributor the CoRIS metadata file name, a corresponding Tracking ID, and a copy of the CoRIS version.

4.7 Metadata Record Updates

Metadata must be maintained for various reasons, such as typographical errors, omissions and changes in data access URLs and observation dates, etc. In the event that changes to your metadata are necessary, please modify the current CoRIS version of the metadata record and send the updated record and its Tracking ID to CoRIS. Be sure to provide new parent spatial, and/or temporal extents, when sending new child records for an existing CoRIS parent metadata record. Please contact CoRIS for a copy of the current metadata record before making any

changes. This will save CoRIS staff from performing redundant work. CoRIS will work with contributors to modify metadata or replace existing metadata.
mailto:CoRIS.Metadata@noaa.gov)

Appendix A. Metadata Information Resources

The Federal Geographic Data Committee (FGDC) has developed metadata standards for geospatial data; any data with geographic positions. Additional information about the standards is presented in Section 3.2.The FGDC standard document and the workbook contains explanatory text and FAQs about metadata. The following web sites contain useful material about the standards and metadata:

1. FGDC metadata standards information can be found at:

   http://www.fgdc.gov/metadata/metadata.html

   http://www.fgdc.gov/metadata/meta_stand.html

   http://www.fgdc.gov/standards/standards.html

2. FGDC Metadata Workbook can be found at:

   http://www.fgdc.gov/metadata/meta_workbook.html

3. Coastal Metadata Guide:

   http://www.csc.noaa.gov/metadata/.

4. A metadata training course developed by FGDC and CSC:

   http://www.csc.noaa.gov/metadata/curriculum/ .

5. USGS, Metadata in plain language:

   http://geology.usgs.gov/tools/metadata/tools/doc/ctc/.

Appendix B. Federal Geographic Data Committee Standards

FGDC documentation is available for the following standards:

FGDC Content Standard for Digital Geospatial Metadata FGDC-STD-001-1998
http://www.fgdc.gov/metadata/contstan.html

Biological Data Profile of the Content Standard for Digital Geospatial Metadata FGDC-STD-001.1-1999
http://www.fgdc.gov/standards/status/sub5_2.html

Metadata Profile for Shoreline Data FGDC-STD-001.2-2001
http://www.fgdc.gov/standards/status/sub5_6.html

Content Standard for Digital Geospatial Metadata: Extensions for Remote Sensing Metadata, FGDC-STD-012-2002 (Endorsed 10/2002)
http://www.fgdc.gov/standards/status/csdgm_rs_ex.html

Content Standard for Remote Sensing Swath Data FGDC-STD-009-1999
http://www.fgdc.gov/standards/status/sub4_4.html

Classification of Wetlands and Deepwater Habitats of the United States
http://www.fgdc.gov/standards/status/sub3_4.html

Endorsed Standards, Profiles and Extensions FGDC-STD-004

http://www.fgdc.gov/publications/documents/standards/endorsed.html

Appendix C. ASCII Template for CoRIS Metadata

CoRIS metadata template, with no comments, can be copied and used to complete metadata information for CoRIS. See Instructions for completing metadata fields for specific guidance. Elements in italics are for the Biological Profile.

Metadata:
  Identification_Information:
    Citation:
      Citation_Information:
        Originator:
        Publication_Date:
        Title:
        Online_Linkage:
    Description:
      Abstract:
      Purpose:
    Time_Period_of_Content:
      Time_Period_Information:
        Single_Date/Time:
          Calendar_Date:
        Multiple_Dates/Times:
          Single_Date/Time:
            Calendar_Date:
        Range_of_Dates/Times:
          Beginning_Date:
          Ending_Date:
      Currentness_Reference:
    Status:
      Progress:
      Maintenance_and_Update_Frequency:
    Spatial_Domain:
     Description_of_Geographic_Extent:
      Bounding_Coordinates:
        West_Bounding_Coordinate:
        East_Bounding_Coordinate:
        North_Bounding_Coordinate:
        South_Bounding_Coordinate:
    Keywords:
      Place:
        Place_Keyword_Thesaurus:
        Place_Keyword:
      Theme:
        Theme_Keyword_Thesaurus:
        Theme_Keyword:
    Taxonomy:
          Keywords/Taxon:
            Taxonomic_Keyword_Thesauris:
            Taxonomic_Keyword:
      Taxonomic_System:
       Classification_System/Authority:
         Classification_System_Citation
          Citation_Information:
          General_Taxonomic_Coverage:
       Taxonomic_Classification:
         Taxon_Rank_Name:
         Taxon_Rank_Value:
         Applicable_Common_Name:
    Access_Constraints:
    Use_Constraints:

Browse_Graphic:
Browse_Graphic_File_Name:
Browse_Graphic_File_Description:
Browse_Graphic_File_Type:
Distribution_Information:
Distributor:
Contact_Information:
Contact_Person_Primary:
Contact_Person:
Contact_Organization_Primary:
Contact_Organization:
Contact_Address:
Address_Type:
Address:
City:
State_or_Province:
Postal_Code:
Contact_Voice_Telephone:
Distribution_Liability:
Standard_Order_Process:
Non-digital_Form:
Digital_Form:
Digital_Transfer_Information:
Format_Name:
Digital_Transfer_Option:
Online_Option:
Computer_Contact_Information:
Network_Address:
Network_Resource_Name:
Offline_Option:
Offline_Media:
Recording_Format:
Fees:
Ordering_Instructions:
Metadata_Reference_Information:
Metadata_Date:
Metadata_Contact:
Contact_Information:
Contact_Person_Primary:
Contact_Person:
Contact_Organization_Primary:
Contact_Organization:
Contact_Address:
Address_Type:
Address:
City:
State_or_Province:
Postal_Code:
Contact_Voice_Telephone:
Metadata_Standard_Name:
Metadata_Standard_Version:
Metadata_Extensions:
Online_Linkage:
Profile_Name:

Appendix D. Metadata Element Level Content Guidance

Instructions for completing a metadata record following the FGDC standards, including CoRIS required metadata elements are presented in this appendix. For further information, please see http://geology.usgs.gov/tools/metadata/tools/doc/ctc/ .

Capitalized words are instructions, or provide an example or suggested value. Some metadata fields or groups can be repeated. For example, Originator can be repeated to name more than one person.
NOTE: Underlined field names must be included, or are to be included if applicable.

Metadata:
Identification_Information:
Citation:
Citation_Information:
Originator:
ENTER THE NAME OF THE DATA ORIGINATOR HERE; may be repeated
Publication_Date:
ENTER DATE IN THE FORM YYYYMMDD or YYYYMM.
Title:
CREATE A MEANINGFUL TITLE FOR THESE DATA IF ONE DOES NOT ALREADY EXIST. Title should explain Where, What, When, How and Who.
Geospatial_Presentation_Form:
ENTER THE MODE IN WHICH THE DATA ARE PRESENTED. Choices are:
"atlas" "audio" "diagram" "document" "globe" "map" "model"
"multimedia presentation" "profile" "raster digital data" "remote-sensing
image" "section" "spreadsheet" "tabular digital data" "vector digital data"
"video" "view" free text
Extended Domain: "book chapter" "CAD data" "conference proceedings" "database"
"figure" "hologram" "journal article" "pamphlet" "table (non-digital)"
Online_Linkage:
Mandatory if applicable (CoRIS).
*ENTER THE ONLINE LOCATION OF THE DATA AS MAINTAINED BY THE **ORIGINATOR OF THE DATA**.*
Do not include this field if the originator does not maintain the data online. If possible the location should be expressed as a URL. The URL provided should link either directly to the data or to a web page that is as close as possible to the data, accompanied by access instructions. Linking to the home page of a program or organization will necessitate further searching on the part of the user.
Description:
Abstract:
COPY AN EXISTING ABSTRACT OR CREATE A BRIEF ABSTRACT THAT DESCRIBES THE DATA SET.
Purpose:
STATE THE PURPOSE FOR WHICH THESE DATA WERE COLLECTED.
Time_Period_of_Content:
Time_Period_Information:
USE ONE OF THREE OPTIONS – SINGLE DATE, MULTIPLE DATES OR RANGE OF DATES.
Single_Date/Time:
Calendar_Date:
ENTER SINGLE DATE, IF DATA WERE COLLECTED DURING ONE DAY, ONE MONTH OR ONE YEAR. FORMAT IS YYYYMMDD, YYYYMM, OR YYYY.
Multiple_Dates/Times:
Calendar_Date:
ENTER CALENDAR DATE ON WHICH DATA WERE COLLECTED.
Calendar_Date: *Repeat as necessary.*
Range_of_Dates/Times:
Beginning_Date:
EARLIEST DATE OF OBSERVATION IN THESE DATA Use the format YYYY, YYYYMM, or YYYYMMDD, depending on how much you know about these data. For real-time data sets, enter the beginning date of the series of real-time data or products.
Ending_Date:
LATEST DATE OF OBSERVATION IN THESE DATA Use the format YYYY, YYYYMM, or YYYYMMDD, depending on how much you know about these data. For real-time data sets, enter the word "Present".

Currentness_Reference:
CHOOSE FROM "Ground condition", meaning data represent conditions on or during the dates specified, or "Publication date", meaning date on which data were published, or "observed".

Status:

Progress:
CHOOSE FROM "In work", "Complete"

Maintenance_and_Update_Frequency:
CHOOSE FROM "As needed", "None", OR SOME OTHER TIME PERIOD ("Weekly", "Yearly", etc.) THAT APPLIES TO THESE DATA

Spatial_Domain:

Description_of_Geographic_Extent:
A SHORT DESCRIPTION OF THE AREAL DOMAIN OF THE DATASET. (Biological Profile)

Bounding_Coordinates:

West_Bounding_Coordinate:
WESTERNMOST LONGITUDE OF DATA EXTENT IN DECIMAL DEGREES, WESTERN HEMISPHERE IS NEGATIVE, EASTERN HEMISPHERE IS POSITIVE.

East_Bounding_Coordinate:
EASTERNMOST LONGITUDE OF DATA EXTENT IN DECIMAL DEGREES, EASTERN HEMISPHERE IS POSITIVE, WESTERN HEMISPHERE IS NEGATIVE.

North_Bounding_Coordinate:
NORTHERNMOST LATITUDE OF DATA EXTENT IN DECIMAL DEGREES, NORTHERN HEMISPHER IS POSITIVE, SOUTHERN HEMISPHERE IS NEGATIVE.

South_Bounding_Coordinate:
SOUTHERNMOST LATITUDE OF DATA EXTENT IN DECIMAL DEGREES, SOUTHERN HEMISPHERE IS NEGATIVE, NORTHERN HEMISPHERE IS POSITIVE.

Keywords:

Theme:
THEME KEYWORDS ARE MANDATORY. Any thesauri may be used in addition to the CoRIS thesauri. CoRIS has a Discovery (theme) Keyword Thesaurus too. Repeat for each thesaurus used. (May be "None").

Theme_Keyword_Thesaurus:
ENTER "CoRIS Discovery Keyword Thesaurus 1.0".

Theme_Keyword:
INCLUDE ONE AND ONLY ONE KEYWORD FROM THE DISCOVERY THESAURUS.

Theme:

Theme_Keyword_Thesaurus:
ENTER "CoRIS Theme Keyword Thesaurus 1.0". You may repeat this element with other thesauri, if necessary for your data. To do that, repeat "Theme:" then the Theme_Keyword_Thesaurus:" element and then list the keywords from that thesaurus.

Theme_Keyword:
*KEYWORDS FROM THE THESAURUS NAMED ABOVE May be repeated unlimited number of times. All keywords must be preceded by "Theme_Keyword**:.***

Place:
Repeat for each thesaurus used. (May be "None").

Place_Keyword_Thesaurus:
"*CoRIS Place Keyword Thesaurus Version 1.0"*

Place_Keyword:
KEYWORDS FROM THE PLACE THESAURUS NAMED ABOVE May be repeated unlimited number of times. All keywords must be preceded by " Place_Keyword:"

Stratum:
STRATUM KEYWORDS ARE OPTIONAL; may be repeated.

Stratum_Keyword_Thesaurus:
PICK ONE (OR MORE) OF THE AVAILABLE STRATUM THESAURI TO CHARACTERIZE THESE DATA. You can use more than one of these choices in one record, just repeat "Stratum:", then "Stratum_Keyword_Thesaurus:" element and then list the keywords from that thesaurus.

Stratum_Keyword:
KEYWORDS FROM THE STRATUM THESAURUS NAMED ABOVE May be repeated unlimited number of times. All keywords must be preceded by " Stratum_Keyword:"

Taxonomy:
TAXONOMY KEYWORDS ARE MANDATORY IF DATA INCLUDE TAXA IDENTITIES.

Keywords/Taxon:

Taxonomic_Keyword_Thesaurus:

PICK ONE (OR MORE) OF THE AVAILABLE TAXONOMIC THESAURI TO CHARACTERIZE THESE DATA. You can use more than one of these choices in one record, just repeat the "Keywords/Taxon:" element and then list the thesaurus and the keywords from that thesaurus. (May be "None").

Taxonomic_Keywords:

ENTER ONE OR MORE TAXONOMIC KEYWORDS, EACH ONE PRECEDED BY "Taxonomic_Keywords:".

Taxonomic_System:

MAY BE ONE OR MORE. REPEAT AS NEEDED.

Classification_System/Authority:

INFORMATION ABOUT THE CLASSIFICATION SYSTEM OR AUTHORITY USED.

Classification_System_Citation:

Citation_Information:

A CITATION FOR THE CLASSIFICATION SYSTEM OR AUTHORITY USED; defines the authority used for classifying organisms. Use all appropriate citation elements.

General_Taxonomic_Coverage:

*OPTIONA*L.

A DESCRIPTION OF THE RANGE OF TAXA ADDRESSED IN THE DATA SET OR COLLECTION.

Taxonomic_Classification:

SEE APPENDIX B SAMPLE 2 FOR FORMATTING.

Taxon_Rank_Name: Kingdoms

Taxon_Rank_Value: Animalia, Plantae, Monera

ENTER KINGDOMS AS APPROPRIATE FOR ALL TAXA IN THE DATASET.

Taxonomic_Classification:

Taxon_Rank_Name:

ENTER THE RANK OR LEVEL in the taxonomy. Examples are "Kingdom", "Genus", etc.

Taxon_Rank_Value:

ENTER THE NAME REPRESENTING THE TAXONOMIC RANK.

Applicable_Common_Name:

ENTER ANY APPLICABLE COMMON NAMES for the given taxonomic rank and value. *This element can be repeated for multiple common names.*

See Appendix B., Sample 2 for an example of taxonomy.

Access_Constraints:

ENTER "None" OR SPECIFY ACCESS CONSTRAINTS. IF THERE ARE ACCESS CONSTRAINTS, PLEASE SPECIFY HOW A USER CAN ASK FOR THE DATA.

Use_Constraints:

ENTER "None" OR SPECIFY USE CONSTRAINTS, SUCH AS "Please cite contributors when using this data".

Browse_Graphic:

This group is to be used to identify the URL of a preview of browse graphic file. It is optional and repeatable.

Browse_Graphic_File_Name:

MANDATORY FOR BROWSE_GRAPHIC. Enter the name of a related graphic file that provides an illustration of the data set.

Browse_Graphic_File_Description:

MANDATORY FOR BROWSE_GRAPHIC. Enter a text description of the illustration.

Browse_Graphic_File_Type:

MANDATORY FOR BROWSE_GRAPHIC. Enter the graphic file type of a related graphic file, from the following list.

"CGM".....Computer Graphics Metafile
"EPS".....Encapsulated Postscript format
"EMF".....Enhanced Metafile
"GIF".....Graphic Interchange Format
"JPEG".....Joint Photographic Experts Group format
"PBM".....Portable Bit Map format
"PS".....Postscript format
"TIFF".....Tagged Image File Format
"WMF".....Windows metafile
"XWD".....X-Windows Dump

Extended Domain with Biological Profile

"AIF"…… Audio Interchange File Format
"ASF"…… Advanced Streaming Format
"AU"……...Sun audio format
"AVI"……...Audio Video Interleave format

"MID"……..Musical Digital Interface format
"MOVIE"……SGI movie video format
"MP3"…….....MP3 music format
"MPEG"……Moving Picture Experts Group video format
"MPGA"……MPEG audio format
"PNG"……Portable Network Graphics format
"PPT"……Powerpoint presentation
"QT"……Quicktime video format
"RA"……RealAudio format
"WRL"……Virtual Reality Modeling Language
"WAV"……Microsoft audio form

Distribution_Information:
THIS ENTIRE GROUP CAN BE REPEATED

Distributor:

Contact_Information:
NOTE: INCLUDE EITHER CONTACT PERSON PRIMARY OR CONTACT ORGANIZATION PRIMARY.

Contact_Person_Primary:

Contact_Person:
Enter the name of the contact person.

Contact_Organization_Primary:

Contact_Organization:
NAME OF THE ORGANIZATION FROM WHOM THE DATA MAY BE OBTAINED

Contact_Address:
THIS ENTIRE GROUP CAN BE REPEATED

Address_Type:
"MAILING', OR "PHYSICAL", OR BOTH

Address:
STREET OR MAILING ADDRESS

City:
CITY NAME

State_or_Province:
STATE OR PROVINCE NAME

Postal_Code:
POSTAL CODE

Country:
COUNTRY

Contact_Voice_Telephone:
THE TELEPHONE NUMBER BY WHICH INDIVIDUALS CAN SPEAK TO THE ORGANIZATION OR INDIVIDUAL; can be repeated.

Distribution_Liability:
STATEMENT OF LIABILITY, IF ANY, ASSUMED BY THE DISTRIBUTOR
FOR EXAMPLE: NOAA makes no warranty regarding these data, expressed or implied, nor does the fact of distribution constitute such a warranty. NOAA and NODC cannot assume liability for any damages caused by any errors or omissions in these data, nor as a result of the failure of these data to function on a particular system.

Standard_Order_Process:
USE NON-DIGITAL FORM FOR DATA AVAILABLE IN NON-DIGITAL FORM; USE DIGITAL FORM FOR DATA AVAILABLE IN DIGITAL FORM; can be repeated.

Non_Digital_Form:
DESCRIBE HOW TO OBTAIN DATA IN NON-DIGITAL FORM.

Digital_Form:
THIS ENTIRE GROUP CAN BE REPEATED

Digital_Transfer_Information:

Format_Name:
THE NAME OF THE DATA TRANSFER FORMAT, USING ONE OF THE FOLLOWING:
"ARCE" . . . . . ARC/INFO Export format
"ARCG" . . . . . ARC/INFO Generate format
"ASCII". . . . . ASCII file, formatted for text attributes, declared format
"BIL". . . . . Imagery, band interleaved by line
"BIP". . . . . Imagery, band interleaved by pixel
"BSQ". . . . . Imagery, band interleaved sequential

"CDF". . . . . Common Data Format
"CFF". . . . . Cartographic Feature File (U.S. Forest Service)
"COORD". . . . . User-created coordinate file, declared format
"DEM". . . . . Digital Elevation Model format (U.S. Geological Survey)
"DFAD" . . . . . Digital Feature Analysis Data (National Imagery and Mapping Agency)
"DGN". . . . . Microstation format (Intergraph Corporation)
"DIGEST" . . . . Digital Geographic Information Exchange Standard
"DLG". . . . . Digital Line Graph (U.S. Geological Survey)
"DTED" . . . . . Digital Terrain Elevation Data (MIL-D-89020)
"DWG". . . . . AutoCAD Drawing format
"DX90" . . . . . Data Exchange '90
"DXF". . . . . AutoCAD Drawing Exchange Format
"ERDAS". . . . . ERDAS image files (ERDAS Corporation)
"GRASS". . . . . Geographic Resources Analysis Support System
"HDF". . . . . Hierarchical Data Format
"IGDS" . . . . . Interactive Graphic Design System format (Intergraph Corporation)
"IGES" . . . . . Initial Graphics Exchange Standard
"MOSS" . . . . . Multiple Overlay Statistical System export file
"netCDF" . . . . network Common Data Format
"NITF" . . . . . National Imagery Transfer Format
"RPF". . . . . Raster Product Format (National Imagery and Mapping Agency)
"RVC". . . . . Raster Vector Converted format (MicroImages)
"RVF". . . . . Raster Vector Format (MicroImages)
"SDTS" . . . . . Spatial Data Transfer Standard (Federal Information Processing Standard 173)
"SIF". . . . . Standard Interchange Format (DOD Project 2851)
"SLF". . . . . Standard Linear Format (National Imagery and Mapping Agency)
"TIFF" . . . . . Tagged Image File Format
"TGRLN". . . . . Topologically Integrated Geographic Encoding and Referencing (TIGER) Line format (Bureau of the Census)
"VPF". . . . . Vector Product Format (National Imagery and Mapping Agency)
"DBF"……..dBASE data file
"DIF"…….VisiCalc format
"DOC"……..Microsoft Word file
"EPS"……...Encapsulated Postscript
"FW"…….Framework spreadsheet or database format
"GIF"…….Graphics Interchange Format
"GRA"…….ARC/INFO graphic file
"MDB"…….Microsoft Access data file
"PBM"……..Portable Bit Map format file
"PLT"……...ARC/INFO Plot file
"PS"…….Postscript
"QP"…….Quattro Pro data file
"RPD"…….Rapid File
"SPLUS"…S-Plus file
"WK1"…….LOTUS 1-2-3 file
"WKS"…….LOTUS 1-2-3 file
"WP"……WordPerfect
"XLS"……..Microsoft Excel worksheet
"free text". . . . Name of local or other format.

Digital_Transfer_Option:
USE ONLINE OPTION IF DATA ARE AVAILABLE ONLINE, OR OFFLINE OPTION IF DATA ARE NOT AVAILABLE ONLINE; can be repeated.

Online_Option:
Computer_Contact_Information:
Can be repeated.
Network_Address:
Network_Resource_Name:
THE ELECTRONIC ADDRESS AND NAME OF THE FILE OR SERVICE FROM WHICH THE DATA SET CAN BE OBTAINED. Network Resource Name is the name of the file or service from which the data set can be obtained from a distributor, such as NCDC, NGDC, NODC, or CoRIS. The URL provided should

link either directly to the data or to a web page that is as close as possible to the data, accompanied by access instructions. Linking to the home page of a program or organization will necessitate further searching on the part of the user. May be repeated as many times as needed.

Offline_Option:

Offline_Media:

ENTER ONE OF THE FOLLOWING:
"CD-ROM"
"3-1/2 inch floppy disk"
"5-1/4 inch floppy disk"
"9-track tape"
“4 mm cartridge tape"
"8 mm cartridge tape"
"1/4-inch cartridge tape"
Free text description of media.

Recording_Format:

DESCRIBE THE RECORDING FORMAT WITH FREE TEXT OR:
"cpio"
"tar"
"High Sierra"
"ISO 9660"
"ISO 9660 with Rock Ridge extensions"
"ISO 9660 with Apple HFS extensions"

Fees:

DESCRIBE THE FEES AND TERMS, IF ANY, FOR RETRIEVING THE DATA SET.

Ordering_Instructions:

IF YOU (THE DATA ORIGINATOR) PLAN TO DISTRIBUTE THE DATA OFFLINE, PLEASE INCLUDE INSTRUCTIONS FOR ORDERING DATASET COPIES.

Metadata_Reference_Information:

Metadata_Date:

DATE METADATA DESCRIPTION WAS CREATED Use the YYYYMMDD format.

Metadata_Contact:

Contact_Information:

USE EITHER CONTACT PERSON PRIMARY OR CONTACT ORGANIZATION PRIMARY

Contact_Person_Primary:

Contact_Person:

NAME OF PERSON CREATING THE METADATA FOR THESE DATA

Contact_Organization_Primary:

Contact_Organization:

ENTER THE NAME OF THE ORGANIZATION

Contact_Address:

THIS ENTIRE GROUP CAN BE REPEATED.

Address_Type:

ENTER “Mailing” OR “Physical”.

Address:

MAILING AND/OR PHYSICAL ADDRESS OF THE PERSON NAMED ABOVE.
This element may be a single line or multiple lines. City, State, Zip/postal code, country, telephone, fax, and email address go in the specific, self-explanatory elements that follow.

City:

CITY IN ADDRESS

State_or_Province:

STATE IN ADDRESS

Postal_Code:

5 OR 9 DIGIT US ZIP CODE OR INTERNATIONAL POSTAL CODE

Country:

COUNTRY NAME It is not necessary to use US, USA, or America. Use for non-US addresses.

Contact_Voice_Telephone:

PHONE NUMBER; can be repeated.

Metadata_Standard_Name:

PICK ONE:
"FGDC Content Standard for Digital Geospatial Metadata"
“Biological Data Profile of the Content Standard for Digital Geospatial Metadata”

Metadata_Standard_Version:
PICK ONE RESPECTIVELY:
"FGDC-STD-001-1998"
"FGDC-STD-001.1-1999"
Metadata_Extensions:
PROVIDE EXTENSION INFORMATION BELOW. Mandatory if applicable.
Online_Linkage:
A LINK TO THE THIS CoRIS DOCUMENT/GUIDE OR THE NOAA EXTENTIONS DOCUMENT
Profile_Name:
THE NAME OF THE EXTENSION DOCUMENT/GUIDE.